Daily Log #2

Date: 1 February 2002, Lesson length Time: 45 minutes

What did you expect students to learn during the lesson? To start class I had students write about their observations of earthworms. This was important because many of my students have never touched a worm before. At first many of them were squeamish about touching the worms, but the slow introduction helped. I wanted them to view the worms with respect and realize there wasn't much to be squeamish about.

From today's lesson, I expected the students to learn about some behaviors, physical appearances, and senses of worms. Through observation I wanted the students to discover that their worms had a front end and a back end. They needed to be able to describe how they know this. I expected them to observe how earthworms move, and why worms tend to knot up when they meet. From observations they also needed to determine if their worm has eyes, ears, mouth, and a nose. This was an introduction to the essential question: Knowing structure and function, what are the earthworm's needs and adaptations for their environment?

Describe the instructional strategies, learning activities and resources used by you and your students during the lesson. To prompt student interest, I welcomed the students to my class holding a few earthworms. They were very curious about why I wasn't disgusted with the worms' slimy bodies. I announced that I loved worms, and that they would learn to love worms too. Many of the students thought I was crazy!

To start class I told them the purpose of today's activity and other activities in the future would be to answer the many questions they had from yesterday's class. Before they started their worm observations I spent time discussing the proper treatment of worms. I had them suggest how to handle worms by their observations of how I was holding and viewing the worms as they came into class. We reviewed how to make proper observations using their eyes, ears, and gentle hands.

While the students were making their observations, I had them working in pairs. This was important because they were able to generate more observations and check with one another if the observations were appropriate. They used one sheet to record all of their observations and write any questions they thought of during this activity.

After many of the students completed the Wonderful Worm Observation sheet, I tried to focus their observations with another sheet (Worm Observation Lab). Again, the students were allowed to work together and discuss their findings.

At the end of class I praised them for their focus on learning in class. Many of them were eager to clarify all of their questions and answers they had, but we did not have enough time. I assured them that we would be discussing their observations at the start of the next class.

Describe how you monitored students' understanding of the lesson's main concepts and what you found. While the students were working on both lab sheets, I was able to walk around the room and touch base with each group. To maintain their interest I would have mini discussions about specific questions on the lab sheet with each group. I also encouraged them to find answers to questions they were generating from their own observations. While I was visiting each group, I looked over their shoulders at their work in progress and redirected those who needed redirection. Because the students were so consumed by observing worms, I was not yet able to discuss their learning or collect their lab sheets. To conclude class I asked the students to brainstorm questions about earthworms from observing them.

Describe how you accommodated student' learning needs during the lesson, and how you plan to adjust your teaching for the next lesson, if necessary, based on the students' learning today. The students learned by observing and felt in control of their learning. All of the students were very focused on today's lesson because they thought they were responsible for coming up with the questions on the Worm Observation Lab sheet.

When I assigned seating for this class, I paired them with differing abilities. Most of the pairs seem to be working well together. I have three pairs of students that I need to continue to monitor to see if they can stay more focused. Today they were not writing as much as other pairs, yet they were consumed by the topic and were focusing more on the worms than filling out the Lab Sheet.

For this lab in the future I think I will review all of the questions on the sheet and discuss my expectations for answering all of the questions, prior to letting the students start that lab sheet. The reason for this is that some students had many inquiries about the questions on the lab sheet. They were also a little reluctant to make educated guesses based on their observations.

Student #3 2/1

Student #3

Wonderful Worm Observations

1. They like to move around.
2. They are very gooey and slimy. Interesting!!
3. They have alot of segments. observations! Good Details!
4. Are very squishy.
5. They seem to not like eachother.
6. They have a long line going down their mi
7. They could stretch out and squish together.
8. They don't want to stay still,
9. when you touch them they move very fast.
10. They lift up their head alot.
11. The tip of their head is white.
12. When they are close they are dark brown.
13. When they are stretched out they are light brown
14. Their head pops in and out.
15. When they move they move, then stop, move, stop ect.

Worm Questions

While you are observing the worms, record any questions you have about the worms.

16. What is the long line down the middle for?
17. Why do they keep picking their head up?
18. How do they stretch out so much?
19. Why do they tangle themselves up?
20. Why are they the color brown? ← Think about where they live!

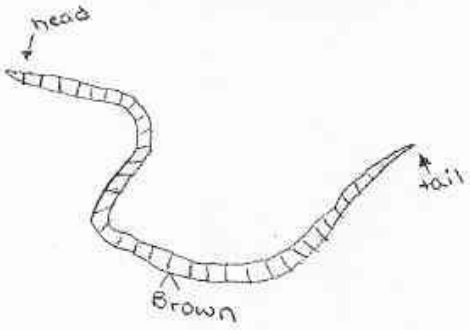
Great Questions! Very thoughtful!!

Student #3 2/1

Worm Observation Lab

Worm Portrait

(Draw a detailed picture of your worm)



Good!

INVESTIGATE:

C 1. Can you tell which is the front end of a worm and which is its tail? Is there a difference? How can you tell?

Yes, because the head is a little white and that is the direction it moves, Also, that looks like how it sees.

C 2. How do worms move? Explain in detail. Do they ever move backwards?

They move kind of quickly and they move then stop, move, stop, ect. Yes, it looks like they move backwards sometime

Describe what is happening with this segment

C 3. What happens when a worm meets another worm?

When a worm meets another worm it seems like they try to leave eachother but they get tangled up.

What did we discuss in class!

How do you know?

4. Can you find and do you think the worm has:

C a. Ears? NO Why? Because when I make a noise it does

C b. Eyes? NO Why? Maybe because if I put something infront do

C c. Mouth? Yes Why? Maybe because they have to eat

Also or anything

C d. Nose? NO Why? Probably because it is using it's sense to stop.

C 5. How is the worm like you?

The worm is like me because it has ~~eyes &~~ a mouth, and stretch's out. Anything else?

get around what does this mean?

C 6. How is the worm different from you?

The worm is different because I am not long, ~~and~~ slimy, brown, and I don't have all of these segments.

What do you mean? Is the worm long or them y-on??

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Daily Log #3

Date: 4 February 2002, Lesson length: 45 minutes

What did you expect students to learn during the lesson? Before discussing the anatomy of worms that was planned for today, we reviewed yesterday's lab sheet. The students were very interested in clarifying all of their observations and answers to questions. For example, they wanted to know what the white ring on one of the worm was for.

Today I expected the students to learn about the anatomy of worms. We discussed the external anatomy and internal anatomy of worms. Included with the internal anatomy were the digestive system, circulatory system, and nervous system. They should have a basic understanding of the functions of the earthworm's body systems. This was a continuation to the essential question: Knowing structure and function, what are the earthworm's needs and adaptations for, their environment?

Describe the instructional strategies, learning activities and resources used by you and your, students during the lesson. At the door today I greeted the students with an earthworm on a transparency sheet. I had a flashlight in my other hand to shine through the worm. I did this because I noticed in many of their observations they were wondering what the stripe in the worm's body was for. The students were excited to see the inside parts of the worm, without hurting the worm. They had many questions, but we first needed to discuss the Worm Observation Lab.

While discussing the lab, I made sure the students validated their answers to the questions by using their observations of the earthworms from the prior day. I also encouraged them to correct their answers during the discussion, if they felt their answer needed improvement.

It is our school policy not to dissect worms. Because of this policy I made a six-foot interactive model of a segmented worm. I told them Wilma the Interactive Earthworm would allow us to see more closely, what they had seen when I had the worm on the transparency. The students were even very curious about the inside parts of the worm from the prior day's observations. I pointed out each part of the worm and had the class guess its importance. I reminded them, during the discussion, that they were able to make good educated guesses from their knowledge of their own body systems. While discussing the worm parts and functions, I had them filling out diagrams of each system of the earthworm.

Describe how you monitored students' understanding of the lesson's main concepts and what you found. During the discussion I was monitoring the students' note taking. If they were not taking the proper notes during the discussion, I either repeated the information or had another student repeat the

information using their own words. I was also monitoring understanding by asking if the students had any questions, and I was including as many students' responses as I could for each question I had for them. For homework during the next few nights they will construct their own worm poster with all of its parts and functions. They will have to combine the three diagrams they filled out in class into one big diagram. This will hopefully help them process and review the information.

Describe how you accommodated student' learning needs during the lesson, and how you plan to adjust your teaching for the next lesson, if necessary, based on the students' learning today.

Most of my students are either visual or auditory learners. That is why I provided the six foot color-coded worm for the students to see and feel. I also provided the diagrams so they could record all of their information. Discussing for information and clarification helped the students know what to take notes on.

I felt a bit more rushed with today's lesson because I needed to conclude the prior day's lab discussion at the start of class. It was very important that I wrap up the lab because there was a lot of information they were very curious about and it was important for them to know. To be sure they have the information they needed to learn from today's class, I will start tomorrow's class reviewing worm anatomy. I will ask for volunteers to explain each function and have the students double check their diagrams with notes.

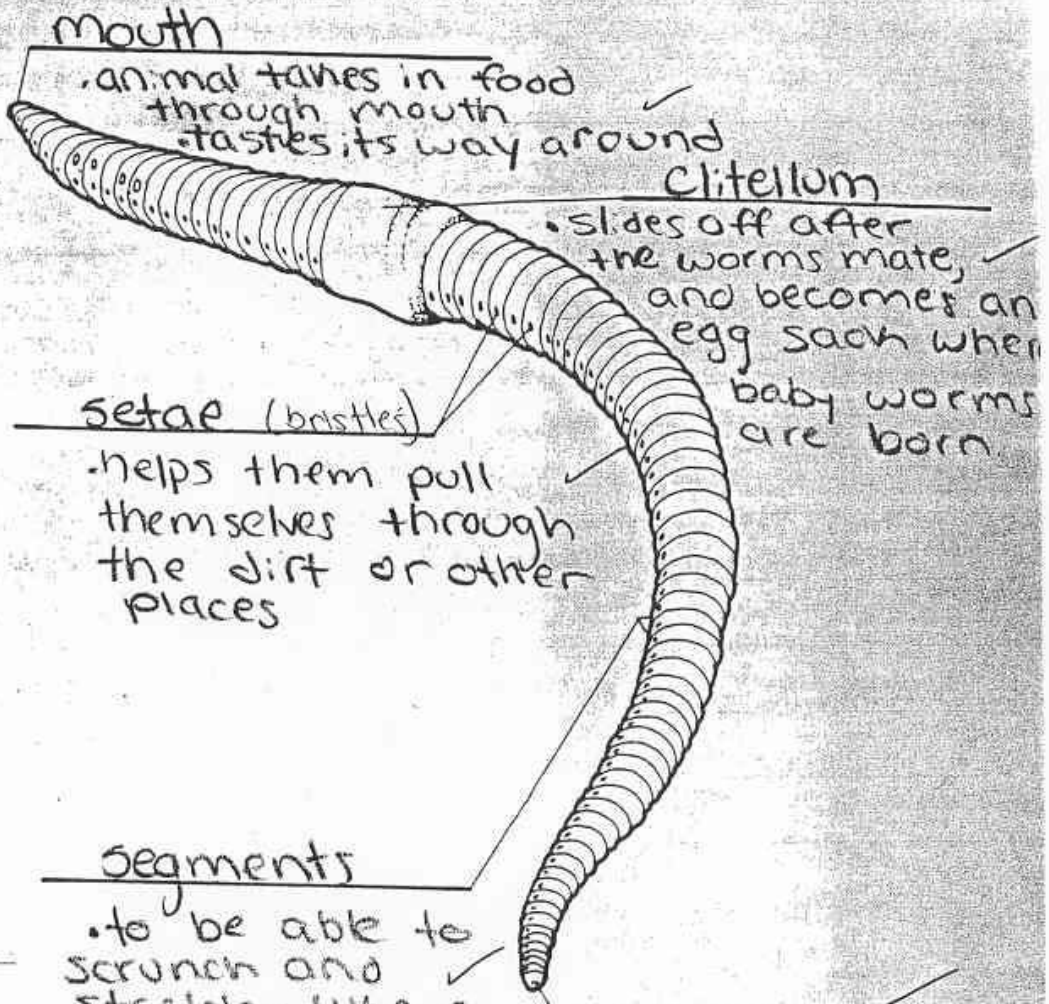
Today, I also seemed stuck in the front of the classroom. That is not generally how I teach. Although I could see that everyone was writing at the appropriate times, I was not checking each individual paper to ensure the students were taking correct and accurate notes. Tomorrow I will have to circulate around the classroom more. I think some of the reason why I wasn't moving around much since the start of the unit is that I just changed the table arrangement in my room right before I started the unit so I could have most of the class fit on camera. So far it is not working for me because it is very restrictive for movement. Before tomorrow’s class, I need to space out the tables more.

The Earthworm

Student #3 2/4/02 Name.

Student #3

Label the exterior parts of the earthworm.



mouth
- animal takes in food through mouth
- tastes its way around

clitellum
- slides off after the worms mate, and becomes an egg sack where baby worms are born

setae (bristles)
- helps them pull themselves through the dirt or other places

segments
- to be able to scrunch and stretch like a slinky to move

anus
- after finish digesting castings come out of the anus. (they go to the bathroom)

WORD BANK

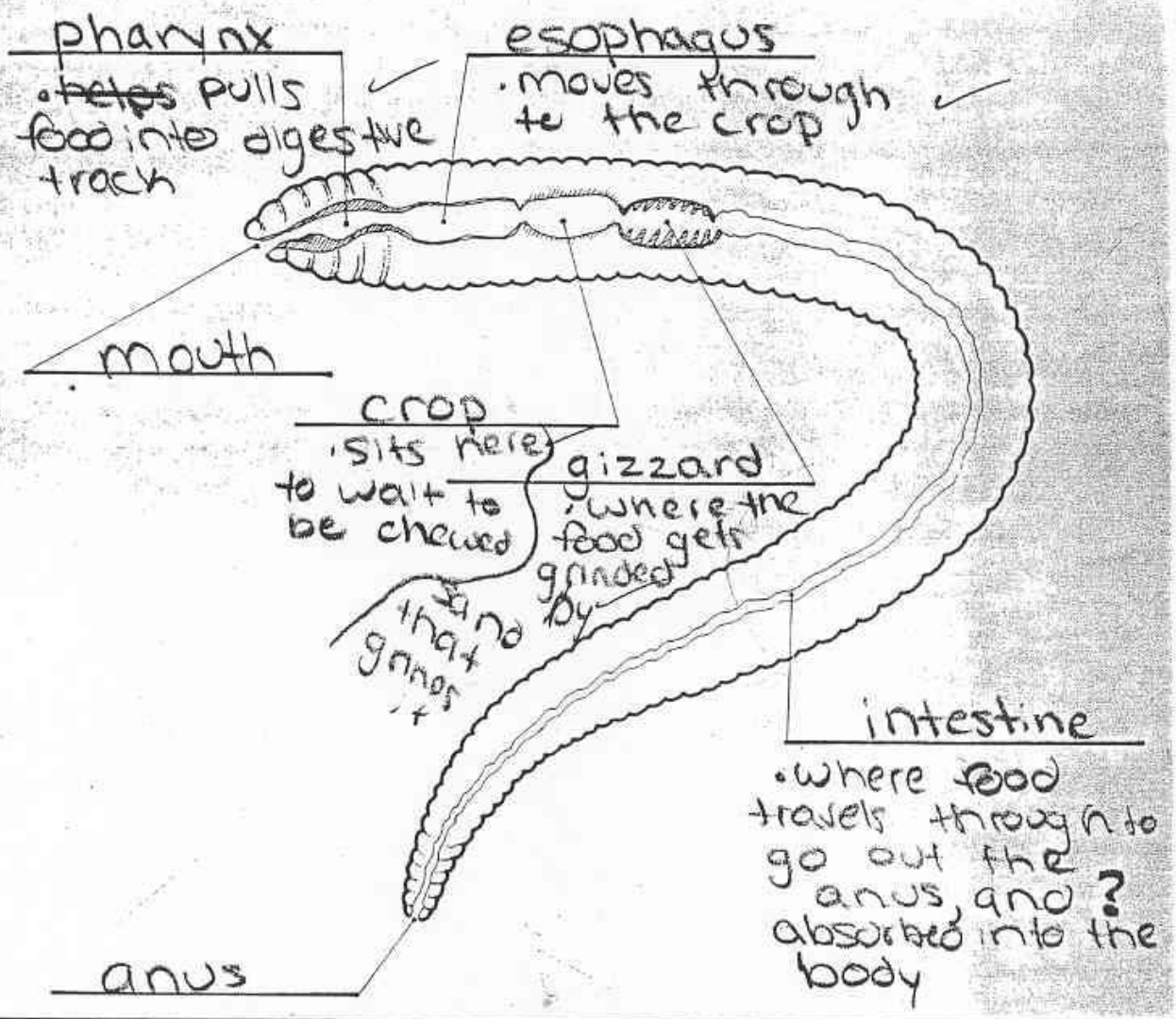
~~mouth~~ ~~segment~~ ~~clitellum~~ ~~anus~~ ~~setae~~

The Earthworm – Digestive System

2/4/02 Name Student #3

For the earthworm, as with most animals, digestion takes place in a long tube with openings at both ends. This tube is divided into organs that do different jobs.

Label the parts of the earthworm's digestive system.



WORD BANK

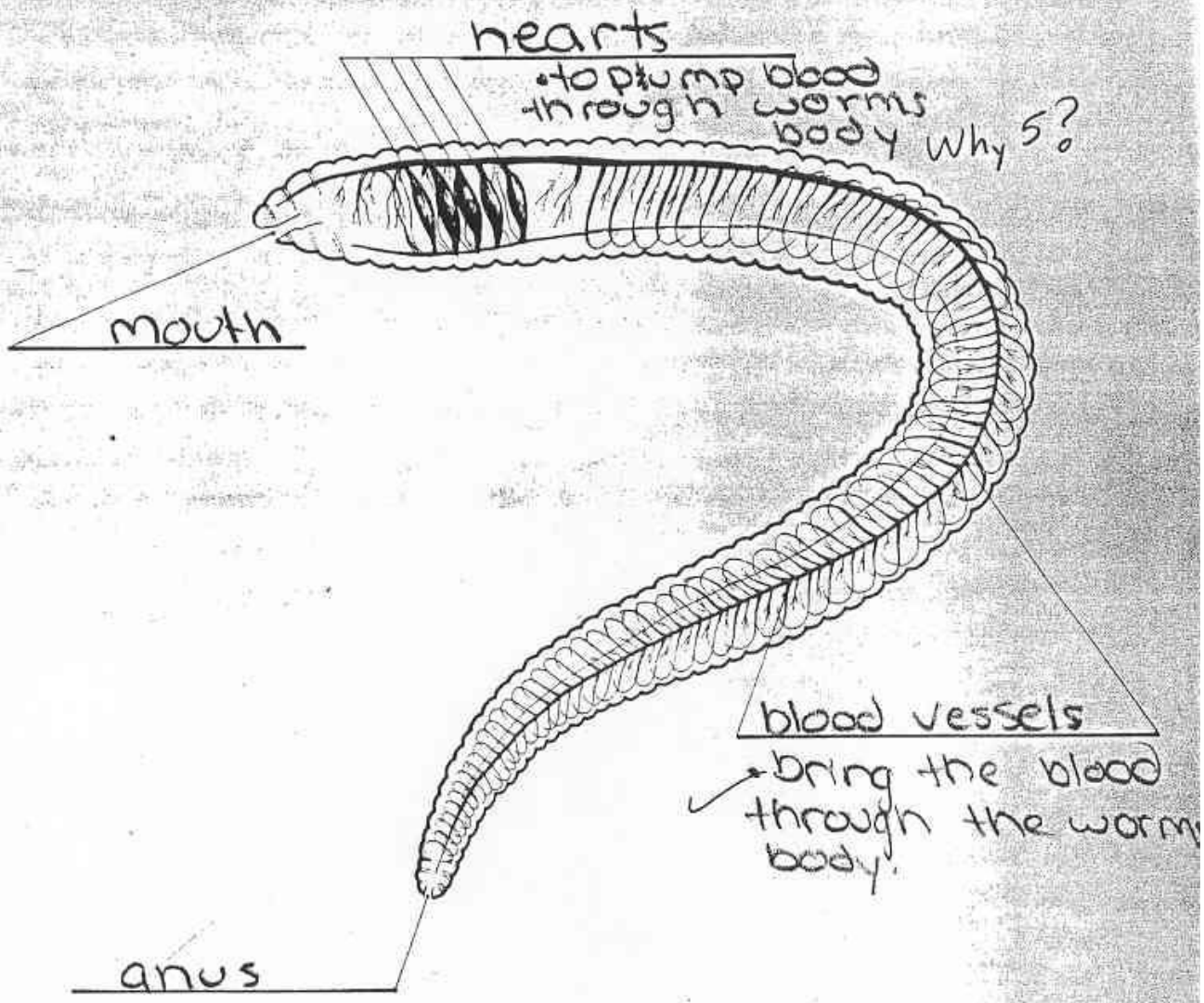
~~crop~~ ~~intestine~~ ~~esophagus~~
~~mouth~~ ~~gizzard~~ ~~anus~~
~~pharynx~~

The Earthworm – Circulatory System

2/4/02 Name Student #3

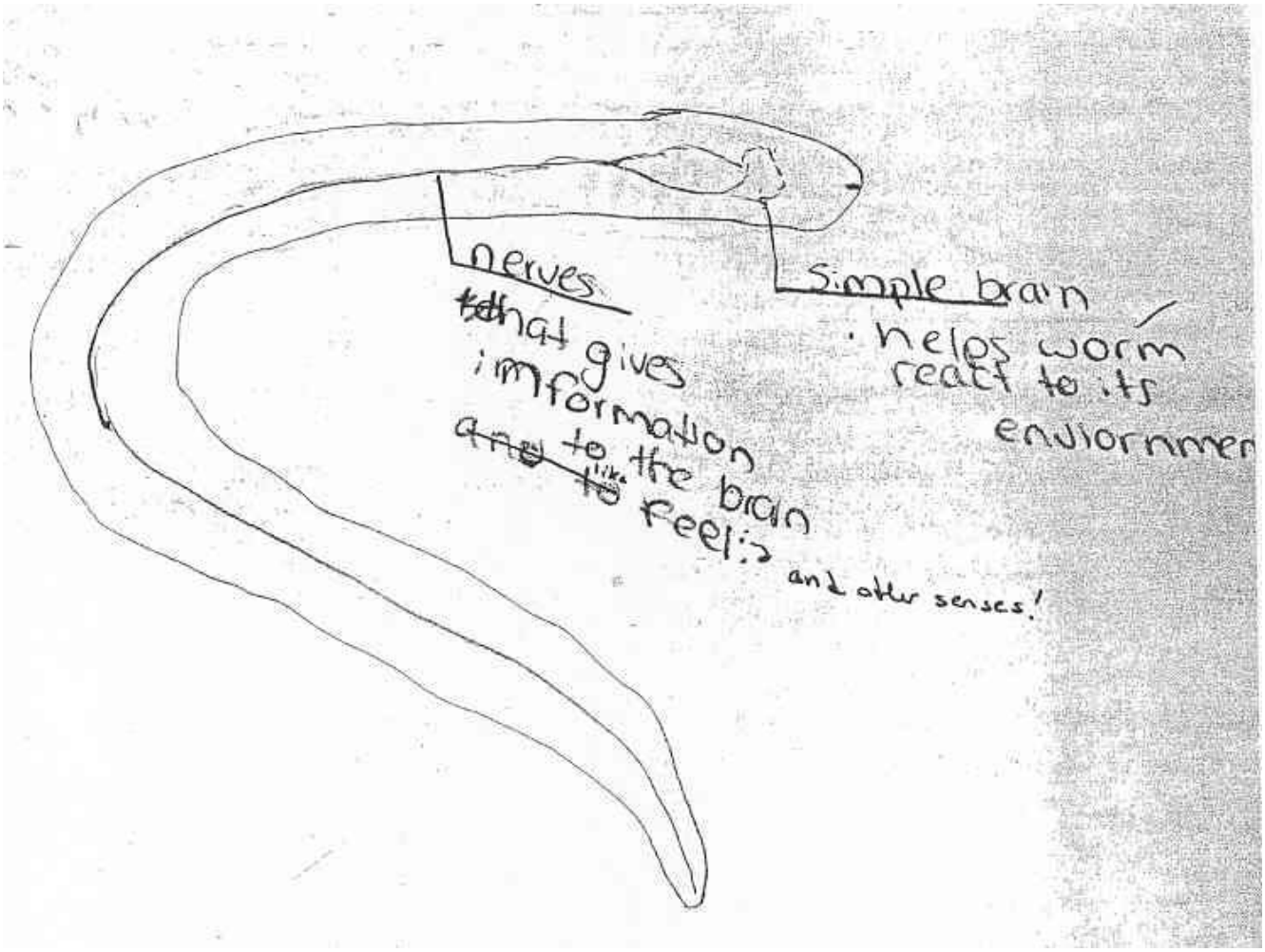
The earthworm's circulatory system is very simple.

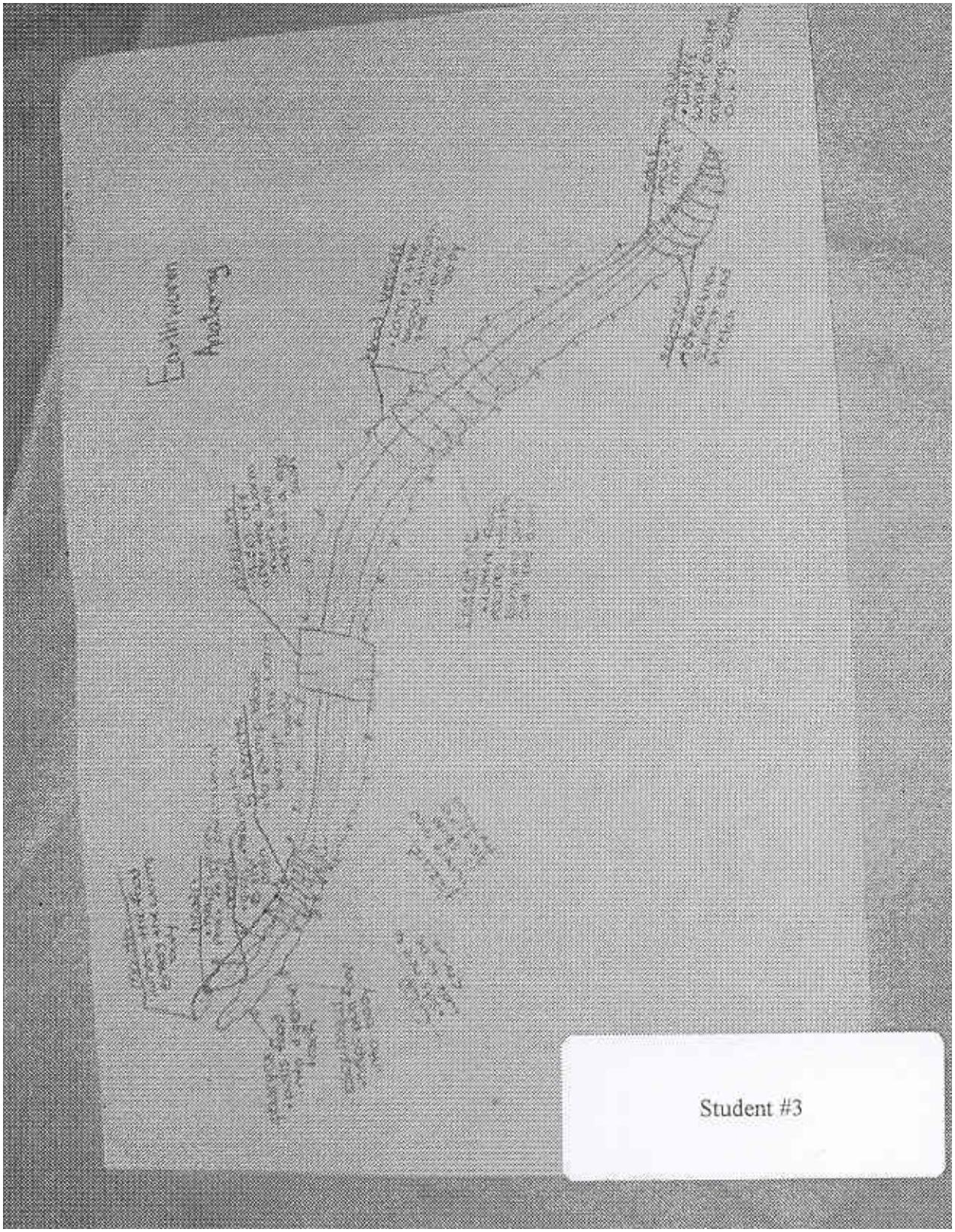
Label the parts of the earthworm and its circulatory system.



WORD BANK

~~hearts~~ ~~blood vessels~~ ~~mouth~~ ~~anus~~


nerves
that gives
information
to the brain
to feel
and other senses!
Simple brain
· helps worm
react to its
enviornmen



Student #3

Worm Poster Grading Rubric

The objective of this project was to illustrate, label, and explain the anatomy of the earthworm.

Title (2 points) **Points Awarded:** 2

0 points: no title stated
1 point: unclear title stated
2 points: title clearly stated

Illustration (6 points) **Points Awarded:** 6

0 points: did not illustrate the internal anatomy of the earthworm
2 points: incomplete or unclear illustration of the anatomy of the earthworm
4 points: generally clear and complete illustration with a minor error or omission
6 points: clear and complete illustration of the anatomy of the earthworm

Labels (6 points) **Points Awarded:** 6

0 points: no labels of anatomy indicated
2 points: labels of anatomy are incomplete, disorganized, and/or hard to read
4 points: labels of anatomy are generally clear and complete with a minor error or omission
6 points: labels of anatomy are clear and complete

Explanation (6 points) How does the setae help them move? What else does the mouth do? What info is given to the brain & the nerves? Clitellum does, become the egg sac which then produces the eggs. **Points Awarded:** 3.5

0 points: no explanations of anatomy indicated
2 points: explanations of anatomy are incomplete, unclear, and/or disorganized
4 points: explanations of anatomy are generally correct and clearly written with a minor error
6 points: explanations of anatomy are accurate, well organized, and clearly written

Format (5 points) **Points Awarded:** 4

Gave yourself credit
Colored
Neat
Organized
Extra Effort
0 points: no
1 point: yes

Overall Points Awarded: 21.5 **out of 25 points**

Grade: 86% = B Good work, but you need to spend more time attending to detail!